

Koichi KAWAMURA, et al.
Appln. No. 10/810,657
Amendment Under 37 CFR 1.114(c)

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-16. (canceled).

17. (currently amended): An abrasive pad for abrading a surface to be abraded in the presence of an abrasive solution, the abrasive pad comprising (a) a base material comprised of a hydrophobic polymer and (b) a graft-polymer chain, wherein the polymer chain has a hydrophilic group and is directly bound to a principal polymer constituting the hydrophobic base material only at the terminal of the polymer chain and introduced to the base material, said graft-polymer chain having a hydrophilic group, being present on the surface of the base material, and being coupled to the hydrophobic polymer, wherein the surface of the base material has a continuous hydrophilic region over the entire surface owing to a free terminal of the graft-polymer chain.

18. (previously presented): The abrasive pad according to claim 17, wherein the hydrophilic group of the graft-polymer chain is a nonionic hydrophilic group selected from the group consisting of hydrophilic groups having an N-monoalkyl substituted structure and hydrophilic groups having an N-dialkyl substituted amide group.

19. (previously presented): The abrasive pad according to claim 17, wherein an amount of the graft-polymer chain introduced into the base material is 10.0% to 150.0% in terms of graft ratio.

20. (previously presented): The abrasive pad according to claim 18, wherein an amount of the graft-polymer to be introduced into the base material is 10.0% to 150.0% in terms of graft ratio.

21. (previously presented): The abrasive pad according to claim 17, wherein the base material comprises a polymer selected from the group consisting of a polyolefin-type polymer, an aryl-type polymer, a diene-type polymer, a silicone-type polymer and a fluorine-type polymer.

22. (previously presented): The abrasive pad according to claim 17, wherein the graft-polymer chain having a hydrophilic group has a molecular weight Mw ranging from 500 to 5,000,000.

23. (previously presented): The abrasive pad according to claim 17, wherein the graft-polymer chain having a hydrophilic group has a molecular weight Mw ranging from 1,000 to 1,000,000.

24. (previously presented): The abrasive pad according to claim 17, wherein the graft-polymer chain having a hydrophilic group has a molecular weight Mw ranging from 2,000 to 500,000.

25. (previously presented): The abrasive pad according to claim 17, having a thickness of 0.2 to 30 mm.

26. (previously presented): The abrasive pad according to claim 17, having a thickness of 0.3 to 10 mm.

27. (previously presented): The abrasive pad according to claim 17, having a thickness of 0.5 to 3 mm.

28. (previously presented): The abrasive pad according to claim 17, further comprising a cushion layer on one face of the base material.

29. (previously presented): The abrasive pad according to claim 28, the cushion layer comprises a material selected from the group consisting of a nonwoven fabric impregnated with a resin, an elastomer, a foam elastic material and a foam plastic.

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30. (previously presented): The abrasive pad according to claim 28, wherein the cushion layer has a thickness in the range of 0.1 to 100 mm.

31. (previously presented): The abrasive pad according to claim 28, wherein the cushion layer has a thickness in the range of 0.2 to 5 mm.

32. (previously presented): The abrasive pad according to claim 28, wherein the cushion layer has a thickness in the range of 0.5 to 2 mm.

33. (previously presented): The abrasive pad according to claim 17, wherein the graft-polymer chain is additionally present inside the base material.